

**WHAT IS CLAIMED IS:**

1. An isolated nucleic acid comprising three start codons within a span of 50 nucleotides, each said start codon being within a different reading frame.
2. The isolated nucleic acid of claim 1, wherein said start codons are ATG codons.
3. The isolated nucleic acid of claim 1, wherein said start codons are within a span of 13 nucleotides.
4. The isolated nucleic acid of claim 3, wherein said 13 nucleotides are ATGGCATGGCATG (SEQ ID NO. 19).
5. The isolated nucleic acid of claim 1, wherein said isolated nucleic acid further comprises a ribosome-binding site positioned 5' of said start codons.
6. A vector comprising the isolated nucleic acid of claim 1.
7. The vector of claim 6, wherein said start codons are ATG codons.
8. The vector of claim 6, wherein said start codons are within a span of 13 nucleotides.
9. The vector of claim 8, wherein said 13 nucleotides are ATGGCATGGCATG (SEQ ID NO. 1).
10. The vector of claim 6, further comprising a sequence that encodes histidine tags in three reading frames.
11. The vector of claim 7, further comprising a sequence that encodes histidine tags in three reading frames.
12. The vector of claim 8, further comprising a sequence that encodes histidine tags in three reading frames.
13. The vector of claim 9, further comprising a sequence that encodes histidine tags in three reading frames.
14. The vector of claim 6, further comprising a ribosome-binding site positioned 5' of said start codons.
15. The vector of claim 14, further comprising a sequence that encodes histidine tags in three reading frames.
16. The vector of claim 15, further comprising one or more cloning sites, said one or more cloning sites located 3', 5', or 3' and 5' of said sequence encoding histidine tags.

17. The vector of claim 16, wherein said vector is pHis6.
18. A cultured cell comprising the vector of claim 6.
19. The cultured cell of claim 18 wherein said cell is a prokaryotic or eukaryotic cell.
20. The cultured cell of claim 19 wherein said cell is selected from the group consisting of a yeast cell, a bacterial cell, a plant cell and an animal cell.
21. A method for determining the presence or absence of an open reading frame in a nucleic acid molecule among a population of nucleic acid molecules, said method comprising:
- a) inserting said nucleic acid molecule into the vector of claim 10 such that said nucleic acid molecule is 3' or 5' of said sequence encoding histidine tags;
  - b) introducing the resulting vector into a host cell;
  - c) culturing said host cell under conditions permitting expression of said nucleic acid molecule;
  - d) determining the presence or absence of a histidine tagged polypeptide encoded by said nucleic acid molecule, the presence of a histidine tagged polypeptide indicating that said nucleic acid molecule has an open reading frame.
22. The method of claim 21, wherein said nucleic acid molecule is a genomic DNA fragment, an EST or a cDNA molecule.
23. The method of claim 21, wherein said host cell is a prokaryotic or an eukaryotic cell.
24. The method of claim 21, wherein said host cell is a plant or an animal cell.
25. The method of claim 21, wherein said host cell is a yeast or a bacterial cell.
26. The complement of the isolated nucleic acid molecule of claim 1.
27. A method for isolating a polypeptide encoded by a nucleic acid molecule, comprising:
- e) determining if said nucleic acid molecule encodes an open reading frame, using the method of claim 21;
  - f) isolating said histidine tagged polypeptide.

